



Regional Transportation Priorities Plan

For the National Capital Region

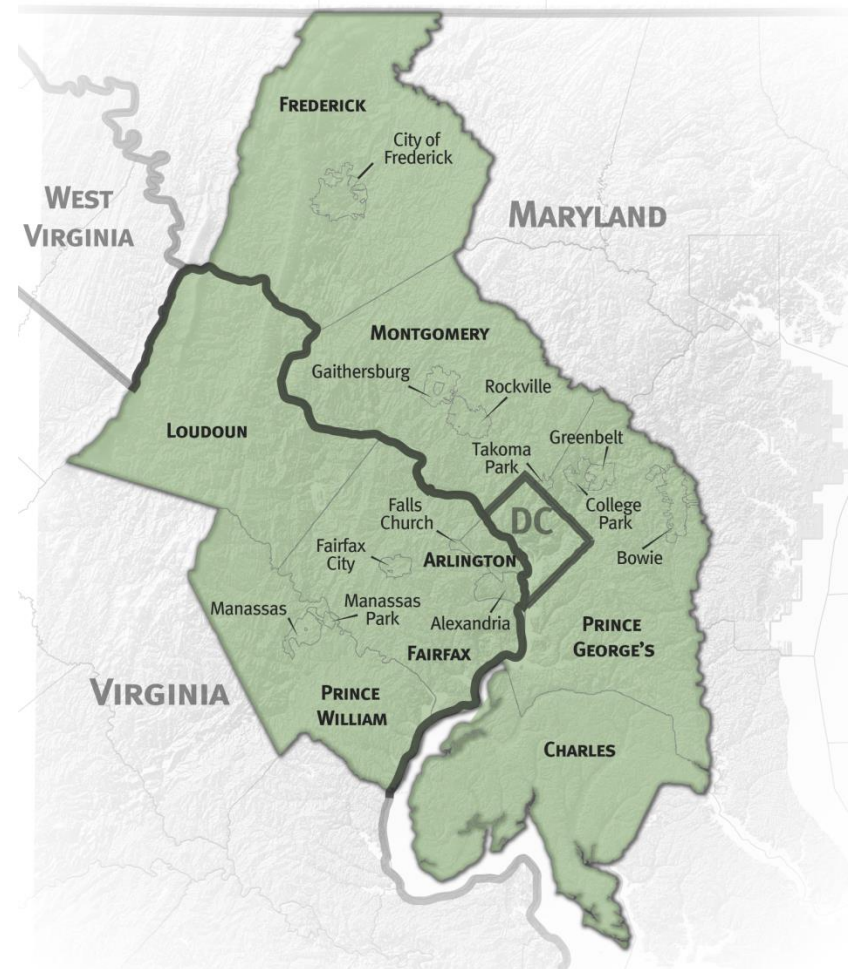
Draft Report Work Session

Presentation to the National Capital Region Transportation Planning Board
July 17, 2013

Regional Transportation Priorities Plan

Process and Objective

- Scope and Process approved by TPB on July 20, 2011
- Identified near-term, ongoing, and long-term regional strategies that offer the **greatest potential for addressing regional challenges** and **that the public can support**



Goals and Challenges:



Regional **T**ransportation **P**riorities **P**lan

For the National Capital Region



Goal 1 - Options: Provide a comprehensive range of transportation options for everyone

Challenges to Achieving Goal 1:

- **Roadway Congestion (G1C1):**
The region's roadways are among the most congested in the nation, making it harder for people and goods to get where they need to go.
- **Transit Crowding (G1C2):**
The Metrorail system currently experiences crowding during peak hours and lacks the capacity to support future population and employment growth.
- **Inadequate Bus Service (G1C3):**
Existing bus service is too limited in its coverage, frequency, and reliability, making transit a less viable option, especially for people with disabilities and limited incomes.
- **Unsafe Walking and Biking Facilities (G1C4):**
Too few people have access to safe walking and bicycling facilities or live in areas where walking and bicycling are practical options for reaching nearby destinations.



Goal 2 - Activity Centers: Promote a strong regional economy including a healthy regional core and dynamic activity centers

Challenges to Achieving Goal 2 :

- **Development Around Metrorail (G2C1):**

Too many Metrorail stations, especially on the eastern side of the region, are surrounded by undeveloped or underdeveloped land, limiting the number of people who can live or work close to transit.

- **Housing and Job Location (G2C2):**

Most housing, especially affordable housing, and many of the region's jobs are located in areas outside of activity centers where transit, bicycling, and walking are not safe and viable options.



Goal 3 - Maintenance: Ensure adequate system maintenance , preservation, and safety

Challenges to Achieving Goal 3:

- **Metrorail Repair Needs (G3C1):**

Deferred Metrorail maintenance over the years has led to unreliability, delays, and safety concerns today, as well as higher maintenance costs.

- **Roadway Repair Needs (G3C2):**

Older bridges and roads are deteriorating and in need of major rehabilitation to ensure safe, reliable, and comfortable travel for cars, trucks, and buses.



Goal 4 - Effectiveness: Maximize operational effectiveness and safety of the transportation system

Challenges to Achieving Goal 4:

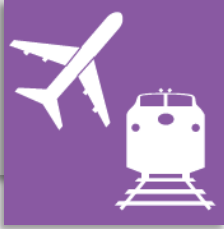
- **Incidents (G4C1):**
Major accidents and weather disruptions on roadways and transit systems cause severe delays and inconvenience.
- **Pedestrian & Bicyclist Safety (G4C2):**
The number of bicycle and pedestrian fatalities each year is holding steady even as the number of vehicle fatalities has declined steadily.



Goal 5 - Environment: Enhance environmental quality, and protect natural and cultural resources

Challenges to Achieving Goal 5:

- **Environmental Quality (G5C1):**
Increasing amounts of vehicle travel resulting from population and job growth could threaten the quality of our region's air and water.
- **Open Space Development (G5C2):**
Wildlife habitat, farmland, and other open spaces are threatened by construction of new transportation facilities and land development.



Goal 6 - Inter-regional: Support inter-regional and international travel and commerce

Challenges to Achieving Goal 6:

- **Bottlenecks (G6C1):**

Bottlenecks on the highway and rail systems cause delays in inter-regional travel for both freight and passengers, hurting the region's economic competitiveness.

- **Travel Time Reliability (G6C2):**

Travel times to and from the region's airports are becoming less reliable for people and goods movement.

Strategies

Near-Term: Can be implemented in 1-5 years

On-Going: Continuing attention over time

Long-Term: Can be implemented in 10-30 years



Near-Term Strategies

1 Improve Access Around Bus Stops and Rail Stations (NT1)



Make it easier and safer to get to bus stops and rail stations, especially by modes other than car, and make bus stops and areas around rail stations more comfortable and inviting.

- Build sidewalks and pedestrian crosswalks and/or overpasses
- Connect bicycle paths to transit stops
- Install protective shelters, curb ramps, and better lighting at or near stations
- Improve signage and wayfinding
- Provide bike-share and car-share services

2 Alleviate Bottlenecks (NT2)



Make targeted roadway improvements that provide congestion relief for drivers in key locations throughout the region.

- Install extra turn lanes, extend highway on-and off-ramps, and build new lanes where doing so is modest in cost and provides congestion relief that supports other regional goals

Near-Term Strategies

3 Alternative Fuel Vehicle Infrastructure (NT3)



Make electric vehicles more convenient to use and encourage more consumers and businesses to purchase such vehicles.

- Invest in a system of public-access electric vehicle recharging stations
- Offer tax credits to private businesses that install recharging stations
- Offer benefits, to owners of electric vehicles
- Pursue all-electric car fleets for car-sharing programs and for public agencies and other organizations with vehicle fleets

4 Commute Alternatives (NT4)



Encourage commuters to use travel modes that make efficient use of limited roadway space at peak hours.

- Reach out with more information on alternative ways to get to work, including by transit, carpool, vanpool, bicycle or walking, or by teleworking
- Provide more incentives for first-time users of alternative commute modes
- Help employers establish commute alternative programs

Near-Term Strategies

5 Pedestrian Infrastructure (NT5)



Make walking a viable transportation choice for more people in more places by making it safer, easier, and more convenient.

- Add sidewalks and improve existing ones
- Install crossing signals at more crosswalks, pedestrian refuge islands, raised medians
- Employ traffic calming to reduce speeds in areas where there are a lot of pedestrians
- Provide direct pedestrian connections between nearby streets and land uses
- Ensuring accessibility to all users

6 Bicycle Infrastructure (NT6)



Make bicycling a viable transportation choice for more people in more places by making it safer, easier, and more convenient.

- Invest in more bike lanes and bike paths
- Expand bike-sharing systems like Capital Bikeshare
- Provide more bicycle parking
- Increase workplace amenities for bicyclists, such as showers and changing rooms

On Going Strategies

1 Metro Maintenance (OG1)



Keep the Metrorail, Metrobus, local bus, and commuter rail systems in the region safe and in good working order.

- Finish carrying out the backlog of deferred maintenance
- Set up systems to address maintenance challenges as they arise
- Secure dedicated, reliable sources of funding to ensure maintenance is carried out as needed

2 Highway Maintenance (OG2)



Ensure that roadways and bridges provide safe, reliable, and comfortable travel for people and goods.

- Ensure that needed road and bridge maintenance projects are completed as a first priority for use of highway funding

On Going Strategies

3 Bus Priority (OG3)



Apply priority bus treatments on key routes to make bus transit faster, more reliable, and more convenient.

- Roadway improvements to allow buses to bypass traffic congestion
- Signal priority, to give buses green lights
- Curb extensions, station platforms, pre-boarding payment and low-floor buses
- Real-time bus information to help travelers plan their trips

4 Roadway Efficiency (OG4)



Smooth traffic flow and minimize delays on the existing road network.

- Coordinate traffic signals and construction schedules
- Provide travelers with more real-time traffic information
- Respond to and clear traffic accidents more quickly
- Prepare for severe weather and other highly disruptive incidents

On Going Strategies

5 Accessible Transportation (OG5)



Improve access to the existing transit system and other transportation services for people with disabilities, in order to create more and better travel options for all individuals.

- Improve MetroAccess and other paratransit services, and provide more wheelchair-accessible taxis region-wide
- Coordinate programs that benefit those with disabilities
- Encourage Complete Streets

6 Update Traffic Laws (OG6)



Apply non-engineering solutions to make the transportation system safer and reduce the number of traffic-related injuries and fatalities.

- Update existing traffic laws to make roadways safer for all users
- Improve enforcement of traffic laws, through stepped up in-person enforcement and automated enforcement
- Increase public information and outreach regarding traffic laws

Long-Term Strategies

A Express Toll Lanes with Rapid Bus Transit (LT1)

1. Build express toll lanes on most interstate highways and some major arterial highways
2. Operate a network of bus rapid transit on express toll lanes, with connections primarily to Activity Centers and/or major rail stations

Express toll lanes will give drivers throughout the region the option to avoid highway congestion. New rapid bus service on the toll lanes will provide high-capacity, congestion-free travel and bring transit service to new areas. Tolls collected on the express toll lanes will cover much of the cost of the new lanes and bus service.



Long-Term Strategies

B Concentrated Growth with More Transit Capacity (LT2)

- 1. Concentrate more development in Activity Centers to achieve land-use and transportation efficiencies**
- 2. Increase capacity of the existing rail and bus network to meet rising demand**
- 3. Expand pedestrian and bicycle infrastructure, especially in Activity Centers, to enhance local circulation and encourage more bicycling and walking**

More housing and jobs located near transit means more people can use the transit system, and will have more opportunities to walk or bicycle to nearby destinations. Increased transit capacity, including 8-car trains and station enhancements on Metrorail will accommodate increased ridership demand.



Long-Term Strategies

A+B

Combine Strategies A+B (LT3)

1. **Build express toll lanes on most interstate highways and some major arterial highways**
2. **Operate a network of bus rapid transit on express toll lanes, with connections primarily to Activity Centers and/or major rail stations**
3. **Concentrate more development in Activity Centers to achieve land-use and transportation efficiencies**
4. **Increase capacity of the existing rail and bus network to meet rising demand**
5. **Expand pedestrian and bicycle infrastructure, especially in Activity Centers, to enhance local circulation and encourage more bicycling and walking**

Combining the elements above will give more people in the region greater access to a wider variety of travel options.



Public Opinion Survey



Regional **T**ransportation **P**riorities **P**lan

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Survey Methodology

Public Opinion Survey

- **Purpose:** to learn 1) which challenges are most important to people; and 2) which strategies people think would best address the region's challenges
- **Survey Period: April 2013 – July 2013**
- **Random sampling method:**
 - Solicit potential respondents via postal mail using list of randomly-selected addresses distributed throughout region
 - Provide \$25 incentive per individual; higher amounts where needed to reach under-represented groups

Survey Methodology

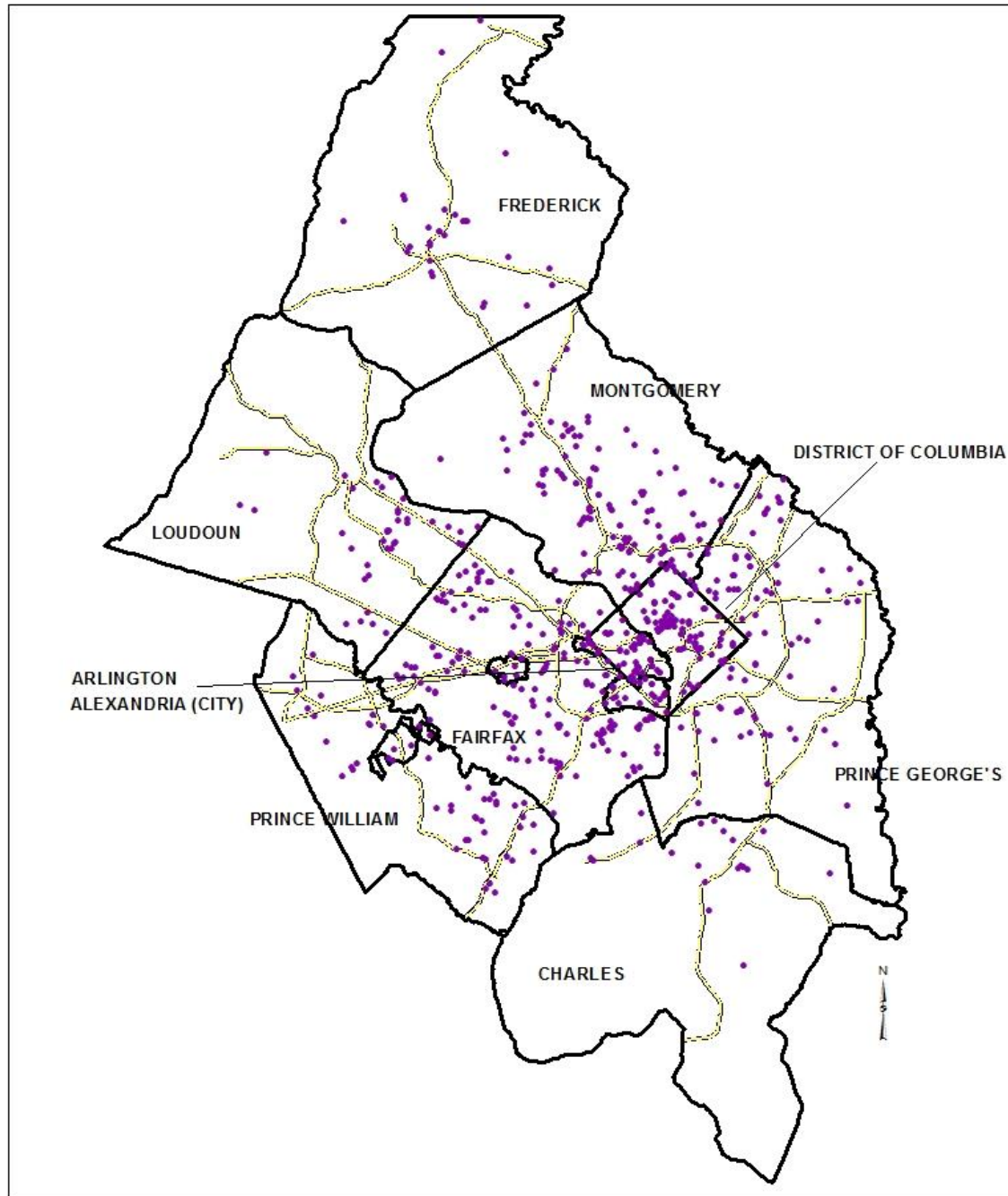
Public Opinion Survey

- **Response Rates**
 - **Sample size:** 660 individuals
 - Apx. 8% of households that received invitations
 - At least one response was received from every jurisdiction

TABLE 1: Completed Responses by Jurisdiction

Jurisdiction	Number of Surveys
	Completed
District of Columbia	77
Arlington County	56
City of Alexandria	21
Montgomery County	127
Prince George's County	81
Fairfax County	148
Fairfax City	5
City of Falls Church	3
Loudoun County	39
Prince William County	48
City of Manassas	3
City of Manassas Park	1
Frederick County	32
Charles County	19
TPB Regional Total	660

RTTP Survey Responses for the TPB Area



Survey Methodology

Public Opinion Survey

- **Survey Weighting:**
Results were weighted based on multiple factors, including:
 - Geography
 - Income
 - Housing type
- Weighted survey responses by jurisdiction matches up well with the jurisdictional distribution of households reported in the 2010 Census

TABLE 2: Comparison of Regional Distribution of Weighted RTPP Survey Respondents with the 2010 Census

Jurisdiction	RTPP Survey Percent	2010 Census Percent
District of Columbia	14.2%	14.1%
Arlington County	5.5%	5.2%
City of Alexandria	3.5%	3.6%
Montgomery County	18.7%	18.9%
Prince George's County	16.3%	16.1%
Fairfax County/Cities	21.0%	21.5%
Loudoun County	5.5%	5.5%
Prince William County/Cities	8.0%	7.8%
Frederick County	4.7%	4.5%
Charles County	2.7%	2.7%
Total	100.0%	100.0%

Survey Methodology

Public Opinion Survey

- RTPP Survey respondents were generally representative of adults residing in the region by **geography, household, and demographic characteristics**
- **Usual means of commuting** to work was the only category where the make-up of survey respondents differed from regional percentages were slightly disproportional:
 - Public transportation users were over-represented and solo drivers were under represented

TABLE 8: Percentage Distribution of RTPP Respondent by Usual Commuting Mode

	RTPP Survey Percent	2011 Census ACS Percent
Drove Alone	58.6%	65.8%
Carpool	3.6%	9.7%
Public Transportation	29.0%	15.4%
Walk and Bike	3.9%	4.0%
Work at Home/Other	4.8%	5.1%
Total	100.0%	100.0%

Goals and Challenges

Question Asked

- Each Goal was presented on a separate screen
- Challenges that are keeping us from reaching the goal were presented below the goal description

For each challenge we ask:

In order to reach the goal, how significant is each challenge?

Rate from 1 star (not significant) ★★★★★ to 5 stars (very significant)

- Participants could submit comments on each challenge
- Additional challenges could be suggested under each goal

Figure 2: Transportation Challenge Ratings
Regional Averages

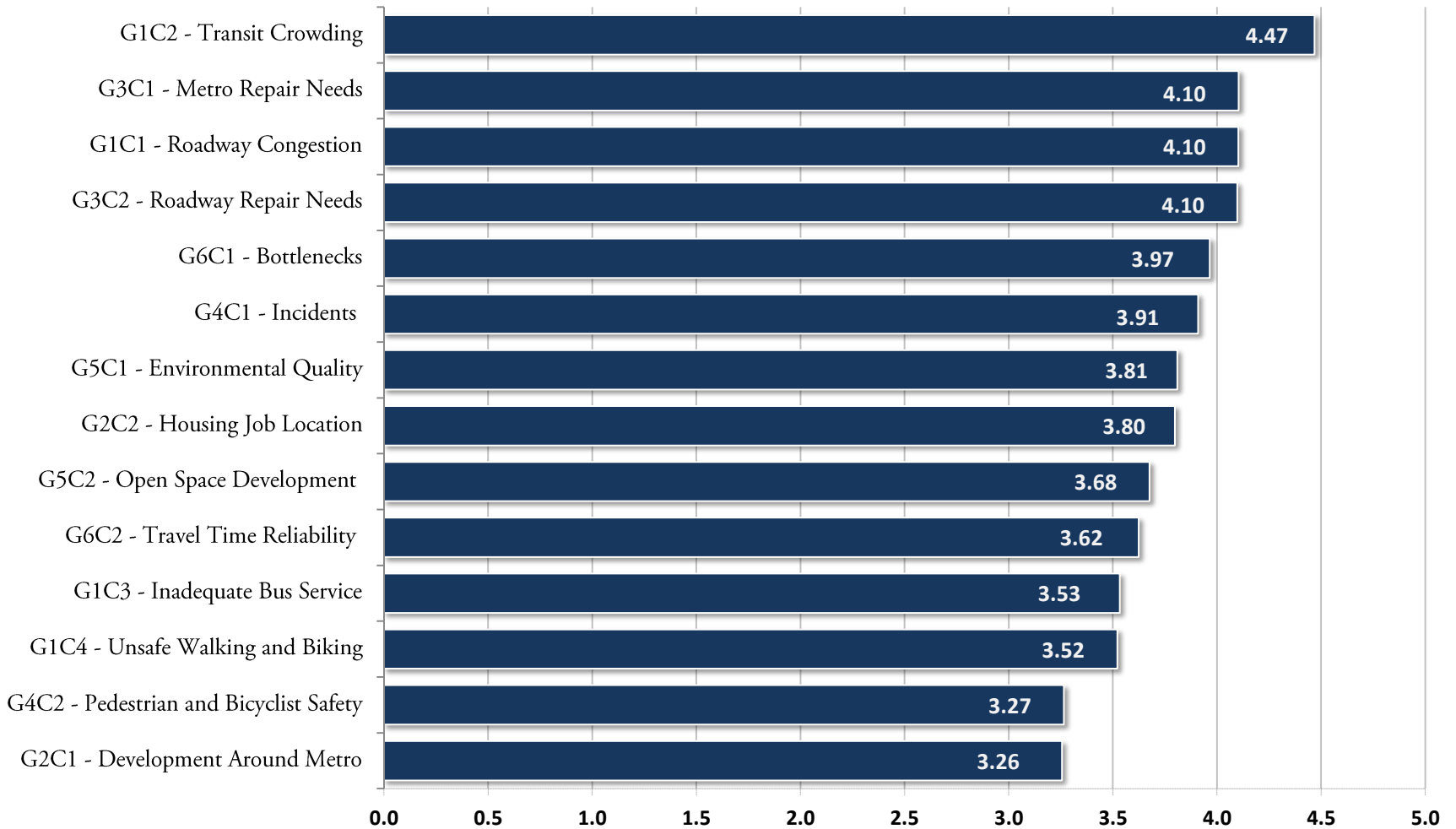


Table 9: Transportation Challenge Ratings: Regional Averages*(Question asked: on a scale of 1-5 rate how significant each challenge is to achieving regional goals?)*

Challenge:	Overall Avg.	Frequency Distribution					Avg. Rating by Sub-Regional Area			Avg. Rating by Primary Commute Mode				
		1 (Not significant)	2	3	4	5 (very significant)	Core	Inner	Outer	Drive Alone	Carpool	Transit	Walk/bike	Other
G1C2 - Transit Crowding	4.47	1.1%	3.1%	8.2%	23.2%	64.5%	<u>4.3</u>	<u>4.5</u>	<u>4.5</u>	<u>4.6</u>	<u>4.4</u>	<u>4.3</u>	<u>4.2</u>	<u>4.6</u>
G3C1 - Metro Repair Needs	4.10	2.9%	5.8%	18.7%	23.3%	49.3%	4.3	4.2	3.8	4.0	4.0	4.4	4.1	4.0
G1C1 - Roadway Congestion	4.10	2.1%	4.5%	18.5%	31.0%	44.0%	4.3	4.1	3.9	3.9	3.8	<u>4.5</u>	4.1	4.0
G3C2 - Roadway Repair Needs	4.10	1.6%	5.6%	18.3%	30.4%	44.1%	3.9	4.2	4.0	4.2	4.0	4.0	3.8	4.2
G6C1 - Bottlenecks	3.97	2.8%	6.7%	22.7%	26.9%	40.9%	3.8	4.0	4.2	4.0	3.7	3.9	3.8	3.8
G4C1 - Incidents	3.91	2.9%	10.5%	22.5%	21.0%	43.1%	3.6	4.0	4.0	4.0	3.7	3.8	3.4	3.6
G5C1 - Environmental Quality	3.81	7.0%	9.0%	20.2%	23.9%	40.0%	3.8	3.8	3.8	3.7	4.3	4.0	3.9	3.8
G2C2 - Housing/Job Location	3.80	6.3%	9.8%	21.5%	22.9%	39.6%	3.9	3.8	3.8	3.7	3.8	4.0	4.1	3.4
G5C2 - Open Space Development	3.68	8.1%	12.7%	19.8%	22.4%	37.1%	3.7	3.7	3.7	3.6	4.1	3.7	3.5	3.6
G6C2 - Travel Time Reliability	3.62	5.2%	13.7%	24.5%	26.9%	29.7%	3.6	3.6	3.8	3.7	3.2	3.7	3.7	3.5
G1C3 - Inadequate Bus Service	3.53	7.2%	12.4%	28.7%	23.2%	28.5%	3.5	3.5	3.6	3.4	3.4	3.9	3.2	3.8
G1C4 - Unsafe Walking and Biking	3.52	10.1%	12.1%	24.9%	21.7%	31.3%	3.3	3.6	3.5	3.5	3.4	3.6	4.1	3.5
G4C2 - Pedestrian and Bicyclist Safety	3.27	8.9%	16.2%	34.2%	20.9%	19.9%	3.3	3.3	3.2	3.2	3.2	3.4	4.0	3.1
G2C1 - Development Around Metro	3.26	9.9%	15.2%	33.2%	22.9%	18.8%	3.3	3.3	3.2	3.2	3.3	3.3	3.6	3.4

BOLD RED numbers indicate four most significant challenges in each category**BOLD RED UNDERLINED** numbers indicate the most significant challenge for each category

NOTE: The observed number of respondents for carpool, walk/bike, and other transportation mode users is very low. Information that is reported for each of these modes is meant to be illustrative.

Strategies

Questions Asked

- Three categories: **Near term**, **On-going**, and **Long term**
- Each strategy was presented with a picture, description, and information on “**what we get**” and “**what it costs us**”

For each strategy we ask:

Do you support this strategy?



&

How would you pay for it?

- Additional dedicated Funding
- Compete for existing funds
- Don't support/fund

- The funding question was coupled with the question of support in order to find the strategies that had a deeper level of support from our participants

Figure 4: Near-Term, Ongoing, and Long-Term Strategies Regional Support and Opposition

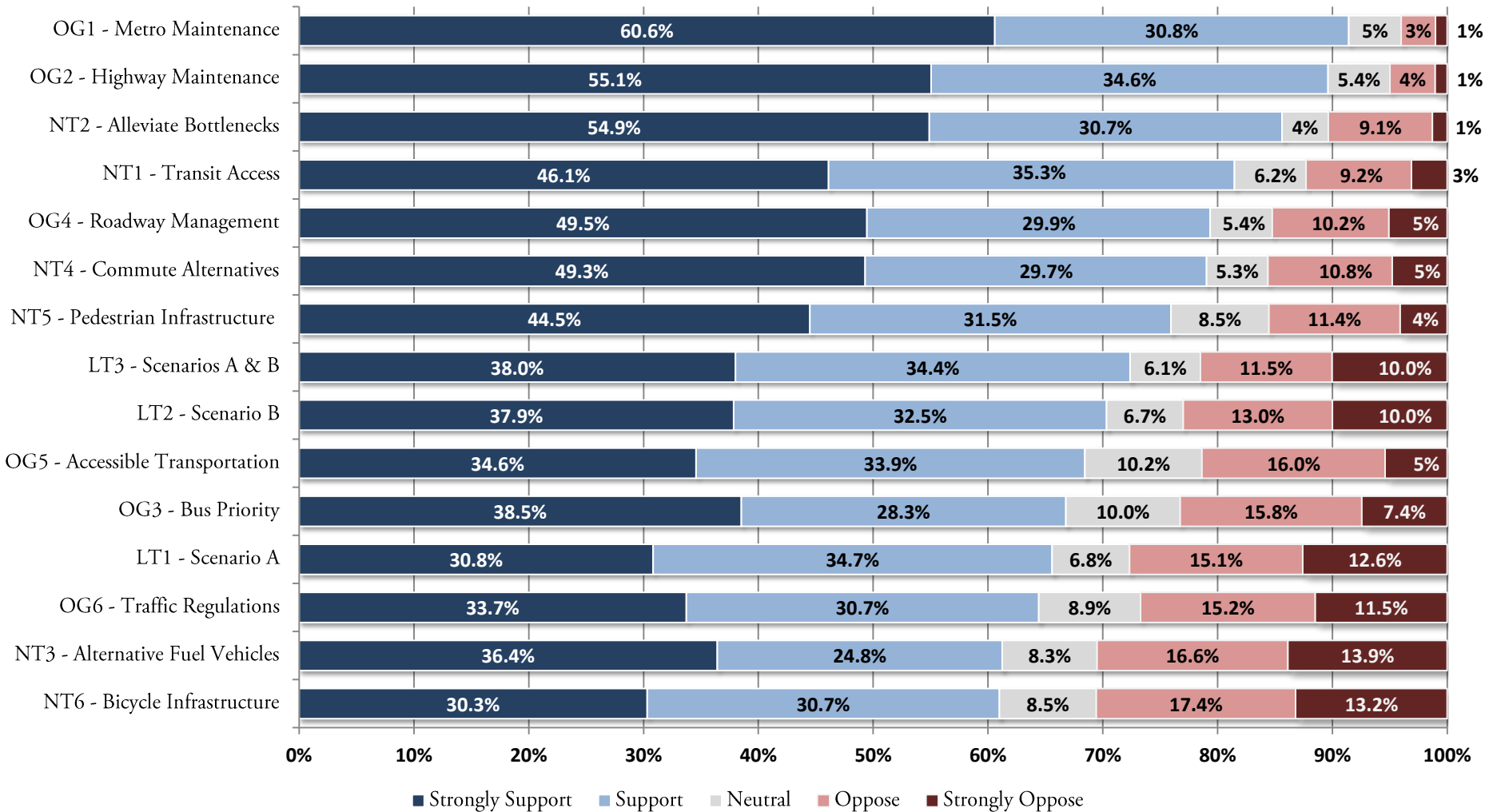


Figure 5: Near-Term, Ongoing, and Long-Term Strategies
% Respondents Who Support Additional Dedicated Funding

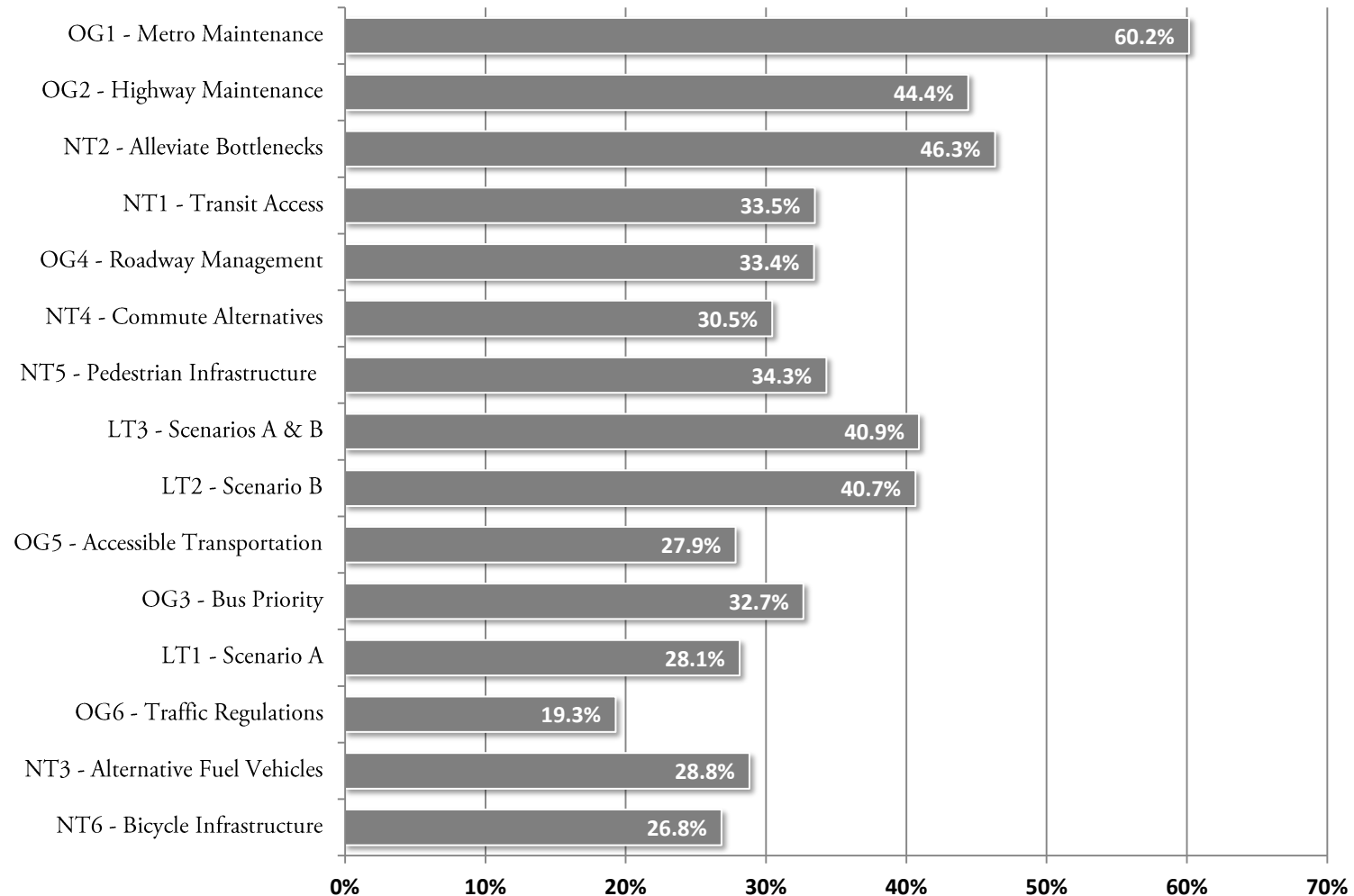


Table 2: Support and Opposition for Near Term, On-Going, and Long Term Strategies*(Question asked: Do you support this strategy?)*

Strategy:	Regional Support/Opposition							Total Support by Sub-Regional Area			Total Support by Primary Commute Mode				
	Total Oppose	Strongly Oppose	Oppose	Neutral	Support	Strongly Support	Total Support	Core	Inner	Outer	Drive Alone	Carpool	Transit	Walk bike	Other
High Support															
OG1 - Metro Maintenance	4.0%	1.0%	3.0%	4.6%	30.8%	60.6%	91.4%	<u>96%</u>	<u>92%</u>	84%	88%	85%	<u>98%</u>	90%	99%
OG2 - Highway Maintenance	5.0%	1.0%	4.0%	5.4%	34.6%	55.1%	89.6%	86%	91%	<u>91%</u>	<u>91%</u>	<u>92%</u>	86%	81%	100%
NT2 - Alleviate Bottlenecks	10.4%	1.3%	9.1%	4.0%	30.7%	54.9%	85.6%	76%	88%	91%	89%	82%	82%	70%	77%
NT1 - Transit Access	12.3%	3.1%	9.2%	6.2%	35.3%	46.1%	81.5%	80%	85%	73%	77%	83%	90%	80%	79%
OG4 - Roadway Management	15.2%	5.1%	10.2%	5.4%	29.9%	49.5%	79.4%	80%	78%	82%	78%	88%	79%	78%	92%
Middle Support															
NT4 - Commute Alternatives	15.6%	4.8%	10.8%	5.3%	29.7%	49.3%	79.0%	78%	79%	79%	73%	86%	85%	85%	94%
NT5 - Pedestrian Infrastructure	15.5%	4.1%	11.4%	8.5%	31.5%	44.5%	76.0%	82%	78%	62%	69%	62%	89%	92%	75%
LT3 - Scenarios A & B	21.5%	10.0%	11.5%	6.1%	34.4%	38.0%	72.4%	76%	74%	63%	68%	66%	77%	87%	77%
LT2 - Scenario B	23.0%	10.0%	13.0%	6.7%	32.5%	37.9%	70.3%	80%	69%	62%	62%	63%	83%	<u>93%</u>	72%
OG5 - Accessible Transportation	21.4%	5.4%	16.0%	10.2%	33.9%	34.6%	68.4%	70%	69%	66%	63%	73%	77%	59%	68%
Lower Support															
OG3 - Bus Priority	23.3%	7.4%	15.8%	10.0%	28.3%	38.5%	66.8%	71%	66%	65%	60%	59%	80%	63%	70%
LT1 - Scenario A	27.7%	12.6%	15.1%	6.8%	34.7%	30.8%	65.6%	62%	68%	64%	65%	60%	60%	65%	68%
OG6 - Traffic Regulations	26.7%	11.5%	15.2%	8.9%	30.7%	33.7%	64.4%	65%	66%	60%	62%	62%	71%	64%	55%
NT3 - Alternative Fuel Vehicles	30.5%	13.9%	16.6%	8.3%	24.8%	36.4%	61.2%	66%	59%	61%	59%	54%	68%	71%	56%
NT6 - Bicycle Infrastructure	30.6%	13.2%	17.4%	8.5%	30.7%	30.3%	61.0%	66%	62%	51%	57%	75%	66%	77%	60%

BOLD RED numbers indicate top five supported strategies for each category**BOLD RED UNDERLINED** numbers indicate the top supported strategy for each category

NOTE: The observed number of respondents for carpool, walk/bike, and other transportation mode users is very low. Information that is reported for each of these modes is meant to be illustrative.

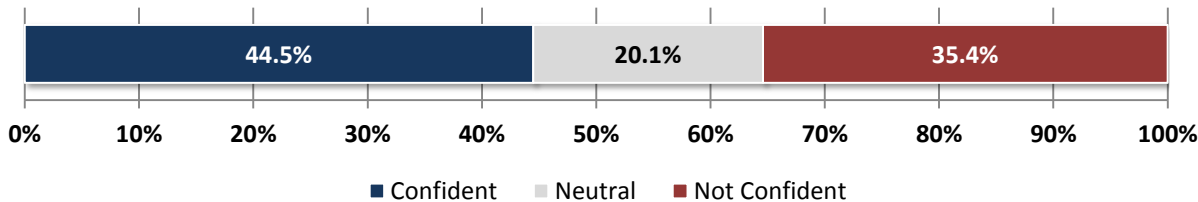
Polling Questions

Questions Asked

- Three additional polling questions were asked
- These questions did not fit into to the discrete challenges or strategies that were present in the survey
- The topics of the three questions were:
 - Confidence in transportation agencies
 - The importance of public information campaigns
 - Potential opposition to higher density development near transit station

Figure 6: Confidence in Transportation Agencies:

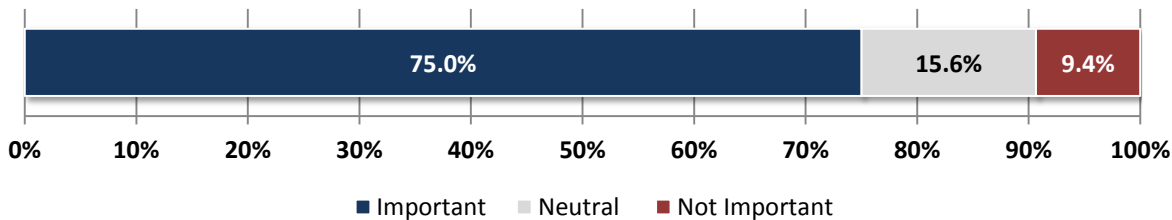
How confident are you that the transportation agencies serving the region will make good use of the resources available to them?



(Follow-up Question: What topics would you like to see more campaigns on?)

Figure 7: Public Information Campaigns:

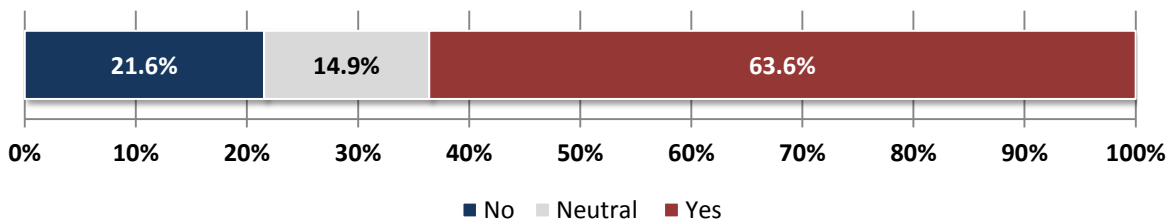
How important do you think public information campaigns are?



Topic	Answered "yes"
Bicycle Safety	29.1%
Pedestrian Safety	35.3%
Transportation Funding	59.3%
Alternative Commuting	60.9%

Figure 8: Opposition to Development:

Do you think opposition from current residents and business owners would be an obstacle to increasing development near transit stations?



Recommendations



Regional
Transportation
Priorities
Plan

For the National Capital Region

Setting Regional Priorities

Analysis of the Public Opinion Survey: Challenges

- The four challenges that were identified as the most significant region-wide were:
 1. **Transit Crowding**
 2. **Metro Repair Needs**
 3. **Roadway Congestion**
 4. **Roadway Repair needs**
- These four challenges were rated as highly significant by residents throughout the region and by users of all commute modes

Setting Regional Priorities

Analysis of the Public Opinion Survey: Strategies I

- The top tier of strategies identified by survey respondents included:
 - **Metro Maintenance**
 - **Highway Maintenance**
- These two strategies were strongly supported by residents throughout the region and by users of all commute modes, and are a primary focus of the new federal MAP-21 legislation

Setting Regional Priorities

Analysis of the Public Opinion Survey: Strategies II

- The second tier of strategies identified by survey respondents included:
 - **Alleviate Bottlenecks**
 - **Transit Access**
 - **Roadway Management**
 - **Commute Alternatives**
 - **Pedestrian Infrastructure**
 - **Long Term Scenarios A & B (combined)**

Setting Regional Priorities

Analysis of the Public Opinion Survey: Strategies III

- The third tier of strategies identified by survey respondents included:
 - **Accessible Transportation**
 - **Bus Priority**
 - **Traffic Regulations**
 - **Alternative Fuel Vehicles**
 - **Bicycle Infrastructure**

Priority One:

Address Metro and Highway Repair Challenges

- **Metro Maintenance** and **Highway Maintenance** strategies are the main strategies that address repairs
- Implementation of these strategies is the responsibility of the transportation agencies that own and operate the region's transit and highway facilities, and can be accomplished through adequate funding of and management by those agencies.
- Metro and highway maintenance should be given the highest priority in program development and allocation of funding in the development of the 2014 CLRP

Priority Two:

Address Transit Crowding and Roadway Congestion Challenges

- An integrated approach incorporating both supply and demand side strategies needs to be taken:
 - **Supply side:**
 - Near-term roadway improvements to alleviate bottlenecks
 - Ongoing roadway management programs
 - Long-term investments in increased capacity of the rail and bus network, including eight-car Metro trains, station enhancements, and bus rapid transit on express toll lanes.
 - **Demand side:**
 - Near-term commute alternative programs
 - Long-term concentration of more growth in mixed-use activity centers

Priority Three:

Address Other Significant Challenges

- The following strategies received significant support from the public and should be give continuing attention in the regional transportation planning process:
 - Meeting the mobility needs of people with disabilities
 - Providing bus priority
 - Updating and enforcing traffic laws to make roadways safer for all users
 - Encouraging alternative fuel vehicles
 - Expanding bicycle infrastructure

Polling Questions

Answers to the polling questions suggested the following process strategies:

- Provide sufficient transparency to inspire confidence that agencies are making good use of the resources available to them
- Make maximum use of public information campaigns to raise public awareness about key transportation issues
- Provide opportunities for involvement of all affected parties when high density development is being considered near transit stations throughout the region

RTPP Next Steps

July – September 2013

- **July 17, 2013** – Presented to TPB
 - TPB Work Session Prior to the July 17 Meeting
 - Comments incorporated into draft to be released July 24
- **July 24, 2013 - Aug 23, 2013**
 - Public Comment
 - Survey open to public
- **September 18, 2013 - Revised Draft Priorities Plan**
 - Presented to TPB

Questions?



Regional
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